

Serial No.: 10/068,545

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A vehicular inflatable restraint system inflator device comprising:

a housing, the housing having a disk form and defining a first chamber, the first chamber in a static state containing a quantity of a first gas generant material ignitable to produce first combustion products including a first inflation gas, the housing having at least a first and a second row of spaced apart gas exit ports adapted to permit passage of the first inflation gas from the inflator device into an associated inflatable airbag cushion;

the first chamber containing at least one ~~inflation~~ gas-permeable treatment element disposed between the quantity of the first gas generant material and the at least two rows of spaced apart gas exit ports, wherein passage of gas through the treatment element results in treatment thereof;

the first chamber also containing a second chamber; the second chamber in a static state having an enclosed volume containing a quantity of a second gas generant material ignitable to produce second combustion products; the second

Serial No.: 10/068,545

chamber having a lid closure adapted to permit fluid communication of the second combustion products with the contents of the first chamber;

a first initiator device operatively associated with the first chamber; and

a second initiator device operatively associated with the second chamber;

the inflator device discharging sufficient inflation gas to inflate a passenger inflatable airbag cushion.

2. (currently amended) The vehicular inflatable restraint system inflator device of claim 1 additionally comprising a ~~barrier~~ rupturable seal closing the gas exit ports to mass flow in a static state.

3. (original) The vehicular inflatable restraint system inflator device of claim 1 wherein the device has a gas output of at least 2 moles of inflation gas.

4. (original) The vehicular inflatable restraint system inflator device of claim 3 wherein the device has a gas output in a range of about 3-4.5 moles of inflation gas.

Serial No.: 10/068,545

5. (original) The vehicular inflatable restraint system inflator device of claim 1 wherein the housing has a length to diameter ratio of at least about 0.6.

6. (original) The vehicular inflatable restraint system inflator device of claim 5 wherein the housing has a length to diameter ratio of no more than about 1.0.

7. (original) The vehicular inflatable restraint system inflator device of claim 6 wherein the housing has a length to diameter ratio in a range of at least about 0.7 and no more than about 0.8.

8. (original) The vehicular inflatable restraint system inflator device of claim 1 wherein each of the first and second rows of spaced apart gas exit ports comprises a plurality of holes with the holes of the first row offset relative to the holes of the second row.

Serial No.: 10/068,545

9. (original) The vehicular inflatable restraint system inflator device of claim 8 wherein the holes of at least the first row includes a plurality of holes of a first diameter and a plurality of holes of a second diameter and wherein the ratio of the first diameter to the second diameter is in a range of about 1.2 to about 1.6.

10. (original) The vehicular inflatable restraint system inflator device of claim 9 wherein the first row includes at least first and second adjacent holes wherein the first adjacent hole is of the first diameter and the second adjacent hole is of the second diameter.

11. (original) The vehicular inflatable restraint system inflator device of claim 1 wherein the holes of each of the first and second rows includes a plurality of holes of a first diameter and a plurality of holes of a second diameter and wherein the ratio of the first diameter to the second diameter is in a range of about 1.2 to about 1.6.

Serial No.: 10/068,545

12. (original) The vehicular inflatable restraint system inflator device of claim 11 wherein each of the first and second rows of gas exit ports includes alternating holes of the first and the second diameters.

13. (original) The vehicular inflatable restraint system inflator device of claim 12 wherein:

the device has a gas output of at least 2 moles of inflation gas;

the housing has a length to diameter ratio of at least about 0.6 and

the holes of the first row are offset relative to the holes of the second row.

14. (currently amended) The vehicular inflatable restraint system inflator device of claim 1 wherein the at least one ~~inflation~~ gas-permeable treatment element is spaced apart from the at least two rows of spaced apart gas exit ports by a plenum.

15. (original) The vehicular inflatable restraint system inflator device of claim 1 wherein at least one of the first and the second gas generant materials is a pyrotechnic material.

Serial No.: 10/068,545

16. (original) The vehicular inflatable restraint system inflator device of claim 1 wherein the first gas generant material and the second gas generant material is each a pyrotechnic material.

17. (original) The vehicular inflatable restraint system inflator device of claim 1 wherein the first and second gas generant materials differ in at least one aspect selected from the group consisting of: composition, shape, form and size.

18. (currently amended) A passenger side vehicular inflatable restraint system inflator device comprising:

a housing, the housing having a disk form and defining a first chamber having a cylindrical outer wall, the first chamber in a static state containing a quantity of a first gas generant material ignitable to produce first combustion products including a first inflation gas, the housing including a plurality of rows of spaced apart gas exit ports in the cylindrical outer wall, the gas exit ports adapted to permit passage of the first inflation gas from the inflator device into an associated inflatable airbag cushion;

Serial No.: 10/068,545

the first chamber containing at least one ~~inflation~~ gas-permeable treatment element disposed between the quantity of the first gas generant material and the plurality of rows of spaced apart gas exit ports, wherein passage of gas through the treatment element results in treatment thereof;

the first chamber also containing a second chamber, the second chamber in a static state having an enclosed volume containing a quantity of a second gas generant material ignitable to produce second combustion products, the second chamber having a lid closure adapted to permit fluid communication of the second combustion products with the contents of the first chamber;

a first igniter assembly operatively associated with the first chamber, the first igniter assembly comprising a first initiator device and a supply of igniter material housed in a first igniter assembly housing, wherein actuation of the first initiator produces a discharge in reaction initiating communication with at least a portion of the supply of the igniter material housed within the first igniter assembly housing and wherein the first igniter assembly housing includes a plurality of openings to permit passage of igniter material reaction products therethrough and into reaction initiating communication with at least a portion of the quantity of the first gas generant material contained in the first chamber; and

Serial No.: 10/068,545

a second initiator device operatively associated with the second chamber;

the inflator device discharging sufficient inflation gas to inflate a passenger inflatable airbag cushion, wherein the inflator device discharges at least 2 moles of inflation gas.

19. (original) The passenger side vehicular inflatable restraint system inflator device of claim 18 wherein the first igniter assembly housing is sized to correspond the supply of igniter material housed therewithin.

20. (withdrawn) The passenger side vehicular inflatable restraint system inflator device of claim 18 wherein the first igniter assembly additionally comprises an insert element joined to the igniter assembly housing, the insert element maintaining discharge reaction initiating communication between the first initiator device and the at least a portion of the supply of the igniter material housed within the first igniter assembly housing.

Serial No.: 10/068,545

21. (original) The passenger side vehicular inflatable restraint system inflator device of claim 18 including at least first and second rows of spaced apart gas exit ports in the cylindrical outer wall, wherein spaced apart gas exit ports of the first row are offset relative to the spaced apart gas exit ports of the second row.

22. (original) The passenger side vehicular inflatable restraint system inflator device of claim 18 having a gas output in a range of about 3-4.5 moles of inflation gas.

23. (original) The passenger side vehicular inflatable restraint system inflator device of claim 18 wherein the housing has a length to diameter ratio of at least about 0.6.

24. (original) The passenger side vehicular inflatable restraint system inflator device of claim 23 wherein the housing has a length to diameter ratio of no more than about 1.0.

Serial No.: 10/068,545

25. (original) The passenger side vehicular inflatable restraint system inflator device of claim 24 wherein the housing has a length to diameter ratio in a range of at least about 0.7 and no more than about 0.8.

26. (original) The passenger side vehicular inflatable restraint system inflator device of claim 18 wherein each of the first and second rows of spaced apart gas exit ports comprises a plurality of holes with the holes of the first row offset relative to the holes of the second row.

27. (original) The passenger side vehicular inflatable restraint system inflator device of claim 26 wherein the holes of at least the first row includes a plurality of holes of a first diameter and a plurality of holes of a second diameter and wherein the ratio of the first diameter to the second diameter is in a range of about 1.2 to about 1.6.